#6/E.D.S

OMB No. 0651-0011

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 6311.N	Serial No.: 09/829,872
	Applicant(s): Brian J. Stockman	Confirmation No.: 7416
	Application Filing Date: April 10, 2001	Group: 1631
	Information Disclosure Statement mailed:	January 17, 2003

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
		NONE					

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation Yes	Translation No
		NONE						

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
MM		Dalvit et al., "Sensitivity-improved detection of protein hydration and its extension to the assignment of fast-exchanging resonances," *J. Magn. Reson. B., 109*:334-338 (1995).
		Dalvit, "Homonuclear 1D and 2D NMR Experiments for the Observation of Solvent-Solute Interactions," *J Magn Reson B.* 1996 Sep;*112*(3):282-288.
		Dalvit et al., "Half-filter experiments for assignment, structure determination and hydration analysis of unlabelled ligands bound to $^{13}C/^{15}N$ labelled proteins," *J. Biomol. NMR, 13*:43-50 (1999).
		Hajduk et al., "Integration of NMR and high-throughput screening," *Comb Chem High Throughput Screen,* Dec;*5*(8):613-621 (2002).
		Hwang et al., "Water suppression that works. Excitation sculpting using arbitrary waveforms and pulsed field gradients," *J. Magn. Reson. A112*:275-279 (1995).
		Kallen et al., "Structural basis for LFA-1 inhibition upon lovastatin binding to the CD11a I-domain," *J. Mol. Biol., 292:*1-9 (1999).
MM		Melacini et al., "Band-selective editing of exchange-relay in protein-water NOE experiments," *J. Biomol. NMR, 13*:67–71 (1999).

EXAMINER	Date Considered
	12/03

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Examiner Initial		Document Description
MMS		Melacini et al., "Water-macromolecule interactions by NMR: a quadrature-free constant-time approach and its application to C12," *J. Biomol. NMR, 15*:189-201 (1999).
		Otting et al., "Studies of protein hydration in aqueous solution by direct NMR observation of individual protein-bound water molecules," *J. Am. Chem. Soc., 111*:1871-1875 (1989)
		Otting et al., "Protein hydration in aqueous solution," *Science, 254*(5034): 974-980 (1991).
		Otting, "NMR studies of water bound biological molecules," *Progr. NMR Spectrosc., 31*:259-285 (1997).
		Price, "Water signal suppression in NMR spectroscopy," *Annual Reports on NMR Spectroscopy* (Ed., Webb, A.), Academic Press, New York, vol. 38, pp. 289-354 (1999).
MMS		Sobol et al., "Solvent magnetization artifacts in high-field NMR studies of macromolecular hydration," *J Magn Reson.* 1998 Feb;*130*(2):262-271.

EXAMINER	Date Considered
MCB	12/03

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U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
[illegible]		4,719,582	01/12/88	Ishida et al.			
		5,270,163	12/14/93	Gold et al.			
		5,306,619	04/26/94	Edwards et al.			
		5,668,734	09/16/97	Krishna et al.			
		5,698,401	12/16/97	Fesik et al.			
		5,804,390	09/08/98	Fesik et al.			
		5,837,460	11/17/98	Von Feldt et al.			
		5,856,496	01/05/99	Fagnola et al.			
		5,891,643	04/06/99	Fesik et al.			
		5,989,827	11/23/99	Fesik et al.			
		6,043,024	03/28/00	Fesik et al.			
[illegible]		6,214,561	04/10/01	Peters et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation Yes	Translation No
[illegible]		DE 196 49 359 C1	02/12/98	Germany (with English language abstract)				X
		EP 0 592 816 A1, B1	04/20/94	EPO (with English language abstract)				X
		GB 2 316 941 A	03/11/98	United Kingdom				
		GB 2 321 104 A	07/15/98	United Kingdom				
		WO 91/10140	07/11/91	WIPO				
		WO 91/17428	11/14/91	WIPO				
		WO 93/00446	01/07/93	WIPO				
		WO 94/14980	07/07/94	WIPO				
[illegible]		WO 96/30849	10/03/96	WIPO				

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		WO 96/30849	10/03/96	WIPO				
		WO 97/00244	01/03/97	WIPO				
		WO 97/18469	05/22/97	WIPO				
		WO 97/18471	05/22/97	WIPO				
		WO 98/46548	10/22/98	WIPO				
		WO 98/48264	10/29/98	WIPO				
		WO 98/57155	12/17/98	WIPO				
		WO 99/09024	02/25/99	WIPO				
		WO 99/17616	04/15/99	WIPO				
		WO 99/36422	07/22/99	WIPO				
		WO 99/43643	09/02/99	WIPO				

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
		Ajay et al., "Can We Learn To Distinguish between "Drug-like" and "Nondrug-like" Molecules?" *Journal of Medicinal Chemistry*, *41*(18):3314-3324 (1998).
		Anderson et al., "Affinity NMR: Decoding DNA Binding," *Journal of Combinatorial Chemistry*, *1*(1):69-72 (1999).
		Balaram et al., "Localization of Tyrosine at the Binding Site of Neurophysin II by Negative Nuclear Overhauser Effects," *Journal of the American Chemical Society*, *94*(11): 4017-4018 (1972).
		Barjat et al., "High-Resolution Diffusion-Ordered 2D Spectroscopy (HR-DOSY) - A New Tool for the Analysis of Complex Mixtures," *Journal of Magnetic Resonance, Series B*, *108*:170-172 (1995).
		Bax et al., "Sensitivity-Enhanced Two-Dimensional Heteronuclear Shift Correlation NMR Spectroscopy," *Journal of Magnetic Resonance*, *67*:565-569 (1986).
		Belton et al., "Application of chemometrics to the ^{1}H NMR spectra of apple juices: discrimination between apple varieties," *Food Chemistry*, *61*(1/2):207-213 (1998).

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MM		Bemis et al., "The Properties of Known Drugs. 1. Molecular Frameworks," *Journal of Medicinal Chemistry*, *39*(15):2887-2893 (1996).
		Bemis et al., "Properties of Known Drugs. 2. Side Chains," *Journal of Medicinal Chemistry*, *42*(25):5095-5099 (1999).
		BLAST 2 Sequences. [online] National Center for Biotechnology Information, National Institutes of Health, United States, [retrieved 2001-08-29]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/gorf/bl2.html>, 1 page.
		Bleicher et al., "Diffusion Edited NMR: Screening Compound Mixtures by Affinity NMR to Detect Binding Ligands to Vancomycin," *Journal of Organic Chemistry*, *63*(23):8486-8490 (1998).
		Boguslavsky, "NMR Finds Elusive Protein-Binding Molecules," *Drug Discovery & Development*, September, 1999 issue, pages 56-60.
		Bothner-By et al., "Binding of Small Molecules to Proteins," *Annals of the New York Academy of Sciences*, *222*:668-676 (1973).
		Bruker Efficient Sample Transfer NMR [online]. Bruker Analytik GmbH, Rheinstetten, Germany, 1998 [retrieved on 2000-10-25]. Retrieved from the Internet: <URL: http://www.bruker.de/analytic/nmr-dep/best/best.htm>, 2 pages.
		Bussiere et al., "Structure of the E2 DNA-Binding Domain from Human Papillomavirus Serotype 31 at 2.4 Å," *Acta Crystallographica*, *D54*(Part 6, No. 2):1367-1376 (1998).
		Chen et al., "NOE Pumping: A Novel NMR Technique for Identification of Compounds with Binding Affinity to Macromolecules," *Journal of the American Chemical Society*, *120*(39):10258-10259 (1998).
		Chen et al., "NOE Pumping. 2. A High-Throughput Method To Determine Compounds with Binding Affinity to Macromolecules by NMR," *Journal of the American Chemical Society*, *122*(2):414-415 (2000).
		Chiyoda et al., "Screening System for Urease Inhibitors Using ^{13}C-NMR," *Chemical & Pharmaceutical Bulletin*, *46*(4):718-720 (1998).
MM		Dalvit et al., "Use of organic solvents and small molecules for locating binding sites on proteins in solution," *Journal of Biomolecular NMR*, *14*(1):23-32 (1999).

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MM		Dalvit et al., "Identification of compounds with binding affinity to proteins via magnetization transfer from bulk water," *Journal of Biomolecular NMR*, *18*(1):65-68 (2000).
		Delaglio, "Adaptive Analysis and Multivariate Methods for Applications," Abstract, *Lab Instrumentation Series, Cambridge Healthtech Institute's Second International, NMR Technologies: Development and Applications for Drug Discovery*, Sheraton Inner Harbor Hotel, Baltimore, Maryland, 2 pages (November 4-5, 1999).
		Detlefsen et al., "Molecular Flexibility Profiling Using NMR Spectroscopy," *Current Medicinal Chemistry*, *6*(5):353-358 (1999).
		Fairbanks et al., "Purification and structural characterization of the CD11b/CD18 integrin α subunit I domain reveals a folded conformation in solution," *FEBS Letters*, *369*(2-3):197-201 (1995).
		Farly et al., "Applications of Flow NMR Spectroscopy to Monitor Binding of Small Molecules to Proteins," Abstract and Poster, Session 6. Applications of NMR to High Throughput Screening and Combinatorial Chemistry, *SMASH: Small Molecule NMR Conference, SMASH'99,* Argonne National Laboratory, Argonne, IL, 32 pages (August 15-18, 1999).
		Farmer II et al., "Localizing the $NADP^+$ binding site on the MurB enzyme by NMR," *Nature Structural Biology*, *3*(12):995-997 (1996).
		Fecik et al., "The Search for Orally Active Medications Through Combinatorial Chemistry," *Medicinal Research Reviews*, *18*(3):149-185 (1998).
		Fejzo et al., "The SHAPES Strategy: An NMR Based Approach for Lead Generation in Drug Discovery," Abstract MIIA-4, *Proceedings of the 18th International Conference on Magnetic Resonance in Biological Systems*, Tokyo Metropolitan University, Tokyo, Japan, 3 pages (August 23-28, 1998).
		Fejzo et al., "The SHAPES strategy: an NMR-based approach for lead generation in drug discovery,"*Chemistry & Biology*, *6*(10):755-769 (1999).
MM		Fesik, "NMR structure-based drug design," *Journal of Biomolecular NMR*, *3*(3):261-269 (1993).

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Examiner Initial*		Document Description
MM		Freeman et al., "Proton-detected ^{15}N NMR spectroscopy and imaging," EPO abstract, XP 002029543, from *Journal of Magnetic Resonance, Series B*, *102*(2):183-192, 1 page (1993).
		Freeman et al., "Proton-Detected ^{15}N NMR Spectroscopy and Imaging," *Journal of Magnetic Resonance, Series B*, *102*(2):183-192 (1993).
		Ghose et al., "A Knowledge-Based Approach in Designing Combinatorial or Medicinal Chemistry Libraries for Drug Discovery. 1. A Qualitative and Quantitative Characterization of Known Drug Databases," *Journal of Combinatorial Chemistry*, *1*(1):55-68 (1999).
		Gonnella et al., "Isotope-Filtered Affinity NMR," *Journal of Magnetic Resonance*, *131*(2):336-338 (1998).
		Gounarides et al., "Nuclear magnetic resonance chromatography: applications of pulse field gradient diffusion NMR to mixture analysis and ligand-receptor interactions," *Journal of Chromatography B*, *725*(1):79-90 (1999).
		Grzesiek et al., "The Importance of Not Saturating H_2O in Protein NMR. Application to Sensitivity Enhancement and NOE Measurements," *Journal of the American Chemical Society*, *115*(26):12593-12594 (1993).
		Hajduk et al., "One Dimensional Relaxation- and Diffusion-Edited NMR Methods for Screening Compounds That Bind to Macromolecules," *Journal of the American Chemical Society*, *119*(50):12257-12261 (1997).
		Hajduk et al., "High-Throughput Nuclear Magnetic Resonance-Based Screening," *Journal of Medicinal Chemistry*, *42*(13):2315-2317 (1999).
		Hegde et al., "Crystal structure at 1.7 Å of the bovine papillomavirus-1 E2 DNA-binding domain bound to its DNA target," *Nature*, *359*(6395):505-512 (1992).
		Hegde et al., "Crystal Structure of the E2 DNA-binding Domain from Human Papillomavirus Type 16: Implications for its DNA Binding-site Selection Mechanism," *Journal of Molecular Biology*, *284*(5):1479-1489 (1998).
MM		Henrichsen et al., "Bioaffinity NMR Spectroscopy: Identification of an E-Selectin Antagonist in a Substance Mixture by Transfer NOE," *Angewandte Chemie, International Edition*, *38*(1/2):98-102 (1999).

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MM		Holmes et al., "Development of a model for classification of toxin-induced lesions using ^{1}H NMR spectroscopy of urine combined with pattern recognition," *NMR in Biomedicine*, *11*(4-5):235-244 (1998).
		Kasukawa et al., "A Fifteen-Amino-Acid Peptide Inhibits Human Papillomavirus E1-E2 Interaction and Human Papillomavirus DNA Replication In Vitro," *Journal of Virology*, *72*(10):8166-8173 (1998).
		Keifer, "High-resolution NMR techniques for solid-phase synthesis and combinatorial chemistry," *Drug Discovery Today*, *2*(11):468-478 (1997).
		Keifer, "New methods for obtaining high-resolution NMR spectra of solid-phase synthesis resins, natural products, and solution-state combinatorial chemistry libraries," *Drugs of the Future*, *23*(3):301-317 (1998).
		Keifer, "NMR tools for biotechnology," *Current Opinion in Biotechnology*, *10*(1):34-41 (1999).
		Keifer et al., "Direct-Injection NMR (DI-NMR): A Flow NMR Technique for the Analysis of Combinatorial Chemistry Libraries," *Journal of Combinatorial Chemistry*, *2*(2):151-171 (2000).
		Kulkov and Williams, "Searching NMR Databases and Predicting NMR Spectra Over the Web," Abstract 71, *Abstracts of Papers, Part 1, 218th ACS National Meeting*, American Chemical Society, New Orleans, LA, 4 pages (August 22-26, 1999).
		Lennon et al., "Hemoglobin Affinity for 2,3-Bisphosphoglycerate in Solutions and Intact Erythrocytes: Studies Using Pulsed-Field Gradient Nuclear Magnetic Resonance and Monte Carlo Simulations," *Biophysical Journal*, *67*(5):2096-2109 (1994).
		Liang et al., "Solution Structure of the DNA-Binding Domain of a Human Papillomavirus E2 Protein: Evidence for Flexible DNA-Binding Regions," *Biochemistry*, *35*(7):2095-2103 (1996).
		Liepinsh et al., "Organic solvents identify specific ligand binding sites on protein surfaces," *Nature Biotechnology*, *15*(3):264-268 (1997).
MM		Lin et al., "Diffusion-Edited NMR-Affinity NMR for Direct Observation of Molecular Interactions," *Journal of the American Chemical Society*, *119*(22):5249-5250 (1997).

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MW		Lin et al., "Screening Mixtures by Affinity NMR," *Journal of Organic Chemistry*, *62*(25):8930-8931 (1997).
		Lindon et al., "Direct coupling of chromatographic separations to NMR spectroscopy," *Progress in Nuclear Magnetic Resonance Spectroscopy*, *29*:1-49 (1996).
		Lindon et al., "Directly Coupled HPLC-NMR and Its Application to Drug Metabolism," *Drug Metabolism Reviews*, *29*(3):705-746 (1997).
		Lipinski et al., "Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings," *Advanced Drug Delivery Reviews*, *23*:3-25 (1997).
		Liu et al., "High-Resolution Diffusion and Relaxation Edited One- and Two-Dimensional ^{1}H NMR Spectroscopy of Biological Fluids," *Analytical Chemistry*, *68*(19):3370-3376 (1996).
		Martin et al., "Beyond Mere Diversity: Tailoring Combinatorial Libraries for Drug Discovery," *Journal of Combinatorial Chemistry*, *1*(1):32-45 (1999).
		Mazel et al., "Genetic characterization of polypeptide deformylase, a distinctive enzyme of eubacterial translation," *The EMBO Journal*, *13*(4):914-923 (1994).
		McBride et al., "The Papillomavirus E2 Regulatory Proteins," *The Journal of Biological Chemistry*, *266*(28):18411-18414 (1991).
		Meyer et al., "Screening mixtures for biological activity by NMR," *European Journal of Biochemistry*, *246*(3):705-709 (1997).
		Moore, "NMR Techniques for Characterization of Ligand Binding: Utility for Lead Generation and Optimization in Drug Discovery," *Biopolymers* (*Peptide Science*), *51*(3):221-243 (1999).
		Moore, "NMR screening in drug discovery," *Current Opinion in Biotechnology*, *10*(1):54-58 (1999).
MW		Morris et al., "Diffusion-Ordered Two-Dimensional Nuclear Magnetic Resonance Spectroscopy," *Journal of the American Chemical Society*, *114*(8):3139-3141 (1992).

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MH		Morris et al., "Resolution of Discrete and Continuous Molecular Size Distributions by Means of Diffusion-Ordered 2D NMR Spectroscopy," *Journal of the American Chemical Society*, *115*(10):4291-4299 (1993).
		Neri et al., "^{1}H, ^{13}C and ^{15}N backbone assignments of cyclophilin when bound to cyclosporin A (CsA) and preliminary structural characterization of the CsA binding site," *FEBS Letters*, *294*(1,2):81-88 (1991).
		Nicholson et al., "'Metabonomics': understanding the metabolic responses of living systems to pathophysiological stimuli via multivariate statistical analysis of biological NMR spectroscopic data," *Xenobiotica*, *29*(11):1181-1189 (1999).
		Pearlman et al., "Novel Software Tools for Chemical Diversity," *Perspectives in Drug Discovery and Design*, *09/10/11*:339-353 (1998).
		Phelps et al., "Molecular targets for human papillomaviruses: prospects for antiviral therapy," *Antiviral Chemistry & Chemotherapy*, *9*(5):359-377 (1998).
		Piotto et al., "Gradient-tailored excitation for single-quantum NMR spectroscopy of aqueous solutions," *Journal of Biomolecular NMR*, *2*(6):661-665 (1992).
		Ponstingl et al., "Detection of protein-ligand NOEs with small, weakly binding ligands by combined relaxation and diffusion filtering," *Journal of Biomolecular NMR*, *9*:441-444 (1997).
		Rabenstein et al., "A Pulse Sequence for the Measurement of Spin-Lattice Relaxation Times of Small Molecules in Protein Solutions," *Journal of Magnetic Resonance*, *34*:669-674 (1979).
		Ross et al., "Fast-HMQC using Ernst angle pulses: An efficient tool for screening of ligand binding to target proteins," *Journal of Biomolecular NMR*, *10*:389-396 (1997).
		Ross et al., "Automation of NMR measurements and data evaluation for systematically screening interactions of small molecules with target proteins," *Journal of Biomolecular NMR*, *16*(2):139-146 (2000).
		Sadowski et al., "A Scoring Scheme for Discriminating between Drugs and Nondrugs," *Journal of Medicinal Chemistry*, *41*(18):3325-3329 (1998).
MH		Scherf et al., "A $T_{1\rho}$-filtered two-dimensional transferred NOE spectrum for studying antibody interactions with peptide antigens," *Biophysical Journal*, *64*(3):754-761 (1993).

EXAMINER	Date Considered
	2/05

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Examiner Initial		Document Description
		Shapiro et al., "High resolution NMR for screening ligand/protein binding," *Current Opinion in Drug Discovery & Development*, 2(4):396-400 (1999).
		Shuker, "Discovering High-Affinity Ligands for Proteins: SAR by NMR," *Science*, *274*(5292):1531-1534 (1996).
		Spraul et al., "Flow Injection Proton Nuclear Magnetic Resonance Spectroscopy Combined With Pattern Recognition Methods: Implications for Rapid Structural Studies and High Throughput Biochemical Screening," *Analytical Communications*, *34*(11):339-341 (1997).
		Spraul et al., "High-Throughput Flow-Injection NMR and its Applications," *Bruker Report*, Bruker Analytik GmbH, Rheinstetten, Germany, 4 pages (August/September 1999).
		Stilbs, "Molecular Self-Diffusion Coefficients in Fourier Transform Nuclear Magnetic Resonance Spectrometric Analysis of Complex Mixtures," *Analytical Chemistry*, *53*(13):2135-2137 (1981).
		Stockman et al., "^{1}H and ^{15}N resonance assignments and solution secondary structure of oxidized *Desulfovibrio vulgaris* flavodoxin determined by heteronuclear three-dimensional NMR spectroscopy," *Journal of Biomolecular NMR*, *3*(2):133-149 (1993).
		Stockman, "NMR spectroscopy as a tool for structure-based drug design," *Progress in Nuclear Magnetic Resonance Spectroscopy*, *33*:109-151 (1998).
		Stockman, "Flow NMR spectroscopy in drug discovery," *Current Opinion in Drug Discovery & Development*, *3*(3):269-274 (2000).
		Tatusova et al., "BLAST 2 Sequences, a new tool for comparing protein and nucleotide sequences," *FEMS Microbiology Letters*, *174*(2):247-250 (1999).
		Teague et al., "The Design of Leadlike Combinatorial Libraries,"*Angewandte Chemie, International Edition*, *38*(24):3743-3748 (1999).
		Veeraraghavan et al., "^{1}H, ^{15}N, and ^{13}C NMR resonance assignments for the DNA-binding domain of the BPV-1 E2 protein," *Journal of Biomolecular NMR*, *11*(4):457-458 (1998).
MM		Vogler et al., "Combination of LC-MS and LC-NMR as a Tool for the Structure Determination of Natural Products," *Journal of Natural Products*, *61*(2):175-178 (1998).

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Examiner Initial	Document Description
	Wang et al., "Solution Studies of Staphylococcal Nuclease H124L. 2. ^{1}H, ^{13}C, and ^{15}N Chemical Shift Assignments for the Unligated Enzyme and Analysis of Chemical Shift Changes that Accompany Formation of the Nuclease-Thymidine 3', 5'-Bisphosphate-Calcium Ternary Complex," *Biochemistry*, *31*(3):921-936 (1992).
	Wang et al., "Toward Designing Drug-Like Libraries: A Novel Computational Approach for Prediction of Drug Feasibility of Compounds," *Journal of Combinatorial Chemistry*, *1*(6):524-533 (1999).
	Warr, "Combinatorial Chemistry and Molecular Diversity. An Overview," *Journal of Chemical Information and Computer Sciences*, *37*(1):134-140 (1997).
	Watanabe et al., "Direct-Coupling of FT-NMR to High Performance Liquid Chromatography," *Proceedings of the Japan Academy, Series B, Physical and Biological Sciences*, *54*(4):194-199 (1978).
	Watt et al., "Comparison of the Crystal Structures of a Flavodoxin in its Three Oxidation States at Cryogenic Temperatures," *Journal of Molecular Biology*, *218*(1):195-208 (1991).
	Wider et al., "Proton-proton Overhauser effects of receptor-bound cyclosporin A observed with the use of a heteronuclear-resolved half-filter experiment," EPO abstract, XP 002029543, from *Journal of the American Chemical Society*, *113*(12):4676-4678, 2 pages (1991).
	Wider et al., "Proton-Proton Overhauser Effects of Receptor-Bound Cyclosporin A Observed with the Use of a Heteronuclear-Resolved Half-Filter Experiment," *Journal of the American Chemical Society*, *113*(12):4676-4678 (1991).
	Wider, "Structure Determination of Biological Macromolecules in Solution Using Nuclear Magnetic Resonance Spectroscopy," *BioTechniques*, *29*(6):1278-1294 (2000).
	Wishart et al., "The ^{13}C Chemical-Shift Index: A simple method for the identification of protein secondary structure using ^{13}C chemical-shift data," *Journal of Biomolecular NMR*, *4*(2):171-180 (1994).
	Wishart et al., "Protein chemical shift analysis: a practical guide," *Biochemistry and Cell Biology*, *76*(2/3):153-163 (1998).

EXAMINER	Date Considered
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*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 6311.N	Serial No.: 09/829,872
	Applicant(s): Brian J. STOCKMAN	Confirmation No.: 7416
	Filing Date: 10 April 2001	Group: 1645

Examiner Initial		Document Description
MM		Wolfender et al., "LC/NMR in Natural Products Chemistry," *Current Organic Chemistry*, 2(6):575-596 (1998).
MM		Wu et al., "An Improved Diffusion-Ordered Spectroscopy Experiment Incorporating Bipolar-Gradient Pulses," *Journal of Magnetic Resonance, Series A*, *115*(2):260-264 (1995).

EXAMINER	Date Considered
	12/03

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INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 6311.N	Serial No.: 09/829,872
	Applicant(s): Brian J. Stockman	Confirmation No.: 7416
	Filing Date: April 10, 2001	Group: 1631

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
		NONE					

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation Yes	Translation No
		NONE						

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
MM		Stockman, "Applications of flow NMR spectroscopy to monitor binding of small molecules to proteins," Innovative Computational Applications: The Interface of Library Design, Bioinformatics, Structure Based Drug Design and Virtual Screening, Biotechnology Division, Institute for International Research, San Francisco, CA, Oct. 25-27, 1999.
		Stockman, "Applications of flow NMR spectroscopy to monitor binding of small molecules to proteins," NMR Technologies: Development and Applications for Drug Discovery, Cambridge Healthtech Institute's Second International, Baltimore, MD, Nov. 4-5, 1999.
MM		Stockman, "Applications of flow NMR spectroscopy to monitor binding of small molecules to proteins," NMR in the drug discovery pipeline, IBC, London, UK, May 8-9, 2000.

EXAMINER	Date Considered
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INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 6311.N	Serial No.: 09/829,872
	Applicant(s): Brian J. Stockman	Confirmation No.: 7416
	Filing Date: April 10, 2001	Group: 1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		NONE					

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
		NONE						

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
MB		Stockman et al., "Screening of compound libraries for protein binding using flow-injection nuclear magnetic resonance spectroscopy," *Methods Enzymol.* 2001;*338*:230-46.

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EXAMINER	Date Considered

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INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 6311.N	Serial No.: 09/829,872
	Applicant(s): Brian J. Stockman	Confirmation No.: 7416
	Filing Date: April 10, 2001	Group: 1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		NONE					

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
		NONE						

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
MW		Hajduk et al., "NMR-based discovery of lead inhibitors that block DNA binding of the human papillomavirus E2 protein," *J. Med. Chem.* 1997;*40*(20):3144-50.
MW		Veeraraghavan et al., "Structural correlates for enhanced stability in the E2 DNA-binding domain from bovine papillomavirus," *Biochemistry,* 1999;*38*(49):16115-24.

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